Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method for determining the status of paths between a start node and an end node of a network, the network comprising at least one path between said start node and said end node, said at least one path comprising at least one connector, said method comprising:

receiving information corresponding to the start node and the end node;

receiving information corresponding to a type of path of interest;

receiving information corresponding to a type of connector of interest;

determining a path between the start node and the end node based upon the type of path of interest and the type of connector of interest;

identifying at least one connector in said path, said at least one connector having a data storage device associated therewith;

receiving data representative of ~~an operating parameter~~ available data storage space from said at least one connector;

comparing said data to a predetermined value; and

providing an indication if said data ~~exceeds~~ is less than said predetermined value.

Claim 2 (original): The method of claim 1, wherein receiving information corresponding to a type of path of interest comprises receiving information corresponding to at least one of: all paths between the start node and the end node, and a shortest path between the start node and the end node.

Claim 3 (original): The method of claim 1, wherein said at least one path comprises at least one sub-network, wherein each of the sub-networks has at least one level 2 connector and at least one level 3 connector, each of the sub-networks

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being configured to intercommunicate with another of the sub-networks via a level 3 connector, and wherein receiving information corresponding to a type of connector of interest comprises receiving information corresponding to at least one of: level 2 and level 3 connectors, and level 3 connectors.

Claim 4 (original): The method of claim 3, wherein, when the type of connectors of interest are level 3 connectors and wherein said determining a path between the start node and the end node comprises:
identifying sub-networks associated with the start node; and
determining whether the end node is associated with at least one of the identified sub-networks.

Claim 5 (original): The method of claim 3, wherein said at least one path comprises at least one segment and wherein when the type of connectors of interest are level 2 and level 3 connectors, determining a path between the start node and the end node comprises:
identifying segments associated with the start node; and
determining whether the end node is associated with at least one of the identified segments.

Claim 6 (original): The method of claim 4, further comprising:
recursively identifying sub-networks associated with the each of the previously identified sub-networks if the end node is not associated with at least one of the identified sub-networks; and
determining whether the end node is associated with at least one of the sub-networks associated with the each of the previously identified sub-networks.

Claim 7 (original): The method of claim 5, further comprising:
recursively identifying segments associated with the each of the previously identified segments if the end node is not associated with at least one of the identified segments; and

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determining whether the end node is associated with at least one of the segments associated with the each of the previously identified segments.

Claim 8 (original): The method of claim 2, wherein determining a path between the start node and the end node comprises:

storing a shortest path between the start node and the end node in memory as a current shortest path; and

if the type of path of interest is the shortest path between the start node and the end node, recursively determining paths between the start node and the end node based upon the type of connector of interest such that, when a newly determined path between the start node and the end node is shorter than the current shortest path, the current shortest path is replaced with the newly determined path.

Claims 9 and 10 (cancelled)

Claim 11 (currently amended): The method of claim 1, wherein said at least one connector monitors itself and records errors detected available space on said data storage device by said monitoring, and wherein said operating parameter is related to the errors recorded by said at least one connector.

Claim 12 (currently amended): The method of claim 1, wherein said at least one connector has a management information base associated therewith and wherein said available storage on said data storage device operating parameter is data stored in said management information base.

Claim 13 (currently amended): A system for determining paths between a start node and an end node of a network, said network comprising at least one path between said start node and said end node, said path comprising at least one connector and at least one segments, said at least one connector comprising a data storage device, said system comprising:

a processor;

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a discovery mechanism associated with said processor, said discovery mechanism configured to generate and store topology data specifying connectors and segments of a network, said discovery mechanism being configured to determine a path between a start node and an end node based upon said topology data; and

a connector evaluation mechanism associated with said processor, said connector evaluation mechanism configured to:

receive a information relating to the available space on said data storage device ~~parameter value~~ from a connector in said path;

compare said ~~parameter value~~ available data space to a preselected value; and

generate an event if said ~~parameter value exceeds~~ available data space is less than said preselected value.

Claim 14 (original): The system of claim 13, wherein said discovery mechanism has a probable path mechanism configured to determine a path between the start node and the end node based upon said topology data.

Claim 15 (original): The system of claim 13, wherein said discovery mechanism has means for determining a path between the start node and the end node based upon said topology data.

Claim 16 (original) The system of claim 14, wherein said probable path mechanism is configured to receive information corresponding to a type of path of interest, receive information corresponding to a type of connector of interest, and determine a path between the start node and the end node based upon said type of path of interest and said type of connector of interest.

Claims 17 and 18 (cancelled)

Claim 19 (currently amended): The method of claim 13, wherein said at least one connector monitors said available space ~~itself and records errors detected by~~

~~said monitoring, and wherein said parameter value is related to the errors recorded by said at least one connector.~~

Claim 20 (currently amended): The method of claim 13, wherein said at least one connector has a management information base associated therewith and wherein said <u>available space is</u> ~~parameter value is data~~ stored in said management information base.

Claim 21 (currently amended): A computer readable medium having a computer program for determining paths between a start node and an end node of a network, the network comprising at least one path, said at least one path comprising at least one connector<u>, said at least one connector comprising a data storage device</u>, said computer readable medium comprising:

logic configured to receive information corresponding to the start node and the end node;

logic configured to receive information corresponding to a type of path of interest;

logic configured to receive information corresponding to a type of connector of interest;

logic configured to determine a path between the start node and the end node based upon the type of path of interest and the type of connector of interest;

logic configured to receive <u>data corresponding to the amount of available space on said data storage device</u> ~~a parameter value~~ from a connector in said path;

logic configured to compare said <u>available space</u> ~~parameter value~~ to a preselected value; and

logic configured to generate an event if said <u>available data space is less than</u> ~~parameter value exceeds~~ said preselected value.

Claim 22 (original): The computer readable medium of claim 21, wherein the logic configured to receive information corresponding to a type of path of interest comprises logic configured to receive information corresponding to at least one of:

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all paths between the start node and the end node, and a shortest path between the start node and the end node.

Claim 23 (original): The computer readable medium of claim 21, wherein said network comprises at least one sub-network, wherein each of the sub-networks has at least one level 2 connector and at least one level 3 connector, each of the sub-networks being configured to intercommunicate with another of the sub-networks via a level 3 connector, and wherein the logic configured to receive information corresponding to a type of connector of interest comprises logic configured to receive information corresponding to at least one of: level 2 and level 3 connectors, and level 3 connectors.

Claim 24 (original): The computer readable medium of claim 23, wherein the logic configured to determine a path between the start node and the end node comprises:

logic configured to identify sub-networks associated with the start node; and

logic configured to determine whether the end node is associated with at least one of the identified sub-networks.

Claim 25 (original): The computer readable medium of claim 23, wherein the logic configured to determine a path between the start node and the end node comprises:

logic configured to identify segments associated with the start node; and

logic configured to determine whether the end node is associated with at least one of the identified segments.

Claims 26 and 27 (cancelled):

Claim 28 (currently amended): The method of claim 21, wherein said at least one connector monitors itself and records said available space errors detected by said monitoring, and wherein said parameter value is related to the errors recorded by said at least one connector.

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Claim 29 (currently amended): The method of claim 21, wherein said at least one connector has a management information base associated therewith and wherein said <u>available space</u> ~~parameter value is data~~ stored in said management information base.